

F.A. PROJECT NO.

NOTES

ASSUMED LIVE LOAD -----MS18 OR ALTERNATE LOADING.

DESIGN FILL-----

FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.

76mm Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.

CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:

1. WING FOOTINGS AND FLOOR SLAB INCLUDING 100mm  
OF ALL VERTICAL WALLS.

2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL  
HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.

THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE  
STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE  
OF THE FILL.

THIS BARREL STANDARD TO BE USED ONLY ON CULVERTS ON 60° SKEW AND TO  
BE USED WITH STANDARD WING SHEET WITH THE SAME SKEW AND VERTICAL  
CLEARANCE.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL  
EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED  
TO LIMIT THE POURS TO A MAXIMUM OF 21.0m. LOCATION OF JOINTS SHALL  
BE SUBJECT TO APPROVAL OF THE ENGINEER.

STEEL IN THE BOTTOM SLAB MAY BE SPICED AT THE PERMITTED CONSTRUCTION  
JOINT AT THE CONTRACTOR'S OPTION, EXTRA WEIGHT OF STEEL DUE TO THE SPLICES  
SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION, HE MAY SPICE THE VERTICAL REINFORCING STEEL  
IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS  
ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPICE LENGTH SHALL BE AS PROVIDED  
IN THE SPICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE  
TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION HE MAY SUBMIT TO THE ENGINEER FOR APPROVAL  
DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT  
IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL  
PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE  
DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL  
PROVISIONS.

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE

BARREL @ \_\_\_\_\_ m<sup>3</sup> / m \_\_\_\_\_ m<sup>3</sup>

WINGS ETC. \_\_\_\_\_ m<sup>3</sup>

TOTAL \_\_\_\_\_ m<sup>3</sup>

REINFORCING STEEL

BARREL \_\_\_\_\_ kg

WINGS ETC. \_\_\_\_\_ kg

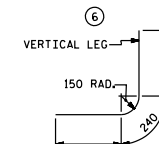
TOTAL \_\_\_\_\_ kg

CULVERT EXCAVATION ----- LUMP SUM

FOUNDATION COND. MAT'L ---- METRIC TONS



LOCATION SKETCH



BAR TYPE

DIMENSIONS ARE OUT TO OUT

PROJECT NO. \_\_\_\_\_

\_\_\_\_\_ COUNTY

STATION: \_\_\_\_\_

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

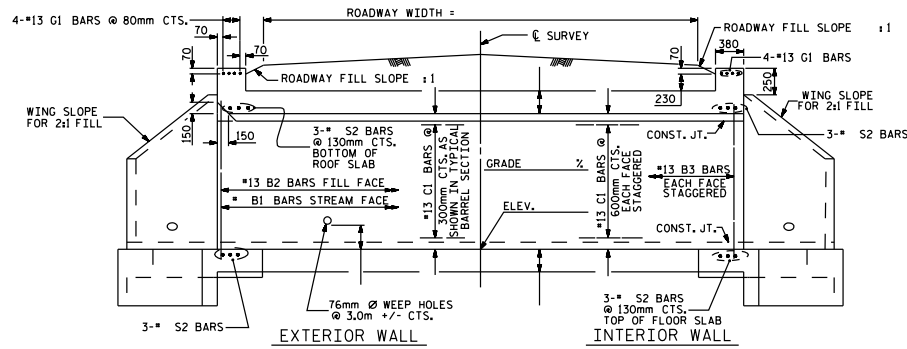
BARREL STANDARD  
QUADRUPLE m X m  
CONCRETE BOX CULVERT  
60° SKEW

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			

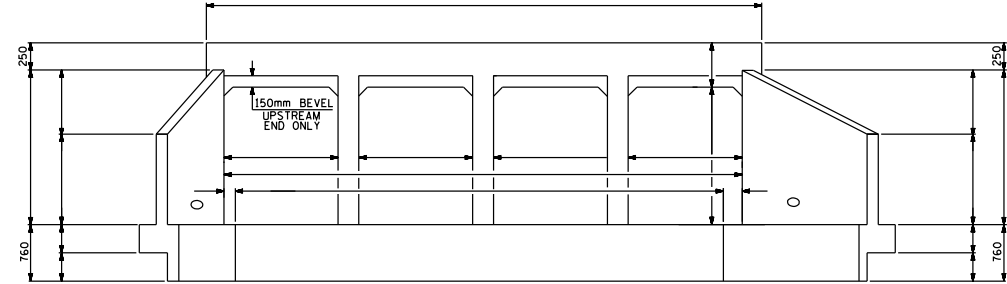
STD. No. CB460SM

ASSEMBLED BY :	DATE :
CHECKED BY :	DATE :
DRAWN BY : EEM 6/97	
CHECKED BY : ARB 7/97	

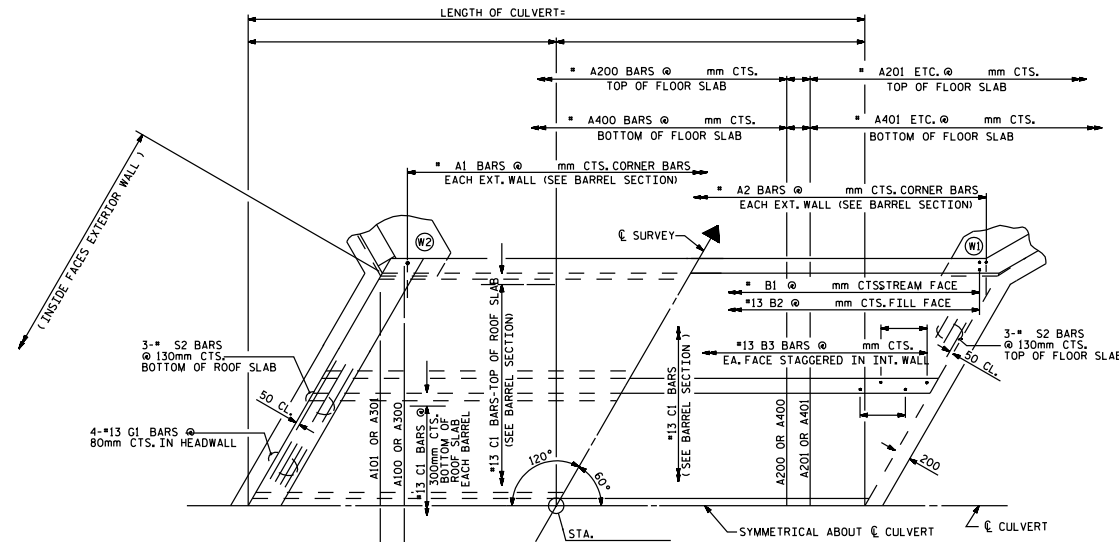
PROFILE ALONG C CULVERT



CULVERT SECTION NORMAL TO ROADWAY

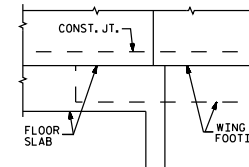
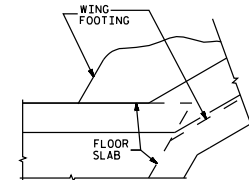


END ELEVATION - NORMAL TO SKEW

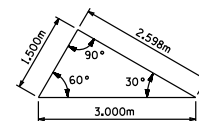


PART PLAN - ROOF SLAB

PART PLAN - FLOOR SLAB



DETAIL  
 CONNECTION OF WING FOOTING  
 AND FLOOR SLAB WHEN SLAB  
 IS THICKER THAN FOOTING



SKEW TRIANGLE



PROJECT NO. \_\_\_\_\_

\_\_\_\_\_ COUNTY

STATION: \_\_\_\_\_

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 BARREL STANDARD  
 QUADRUPLE m X m  
 CONCRETE BOX CULVERT  
 60° SKEW

REVISIONS				SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE
1			3		
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